

Special Issue

Random Processes on Graphs

Message from the Guest Editors

Understanding and ultimately controlling complex systems usually necessitates the development of appropriate mathematical models to elucidate their properties and the inner workings. For this Special Issue, graph-like models are of specific interest together with associated models of stochastic events and other random effects that define the behavior and responses of complex dynamic systems. The papers submitted to this Special Issue can present fundamental contributions to the theory of graph-like random processes, or be more applied in their nature, for instance, derive the properties of information and disease spreading over networks, obtain the fundamental limits of object flows through networks, and consider other relevant applications such as object tracking in networks, synchronization in networks, time evolution of networks, stochastic inference of parameters and structure in networks..... In order to fit the scope of this Special Issue, the submitted papers will be expected to investigate (1) a graph-like model, (2) the model to inherit some stochastic aspects, and (3) the model to reflect some dynamic properties of the selected system.

Guest Editors

Dr. Pavel Loskot

University of Illinois at Urbana-Champaign Institute, Zhejiang University, Haining 314400, China

Dr. Tianhai Tian

School of Mathematics, Monash University, Melbourne 3800, Australia

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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).